

To: Wharton, Steve[Wharton.Steve@epa.gov]
Cc: Progeess, Christina[Progeess.Christina@epa.gov]; Jim Lewis - CDPHE (jim.lewis@state.co.us)[jim.lewis@state.co.us]
From: Hanley, Jim
Sent: Thur 8/6/2015 10:23:18 PM
Subject: Preparation for contaminated sediment and debris blow-out at Standard Mine Level One remedial action

Steve,

In light of current events unfolding at the Upper Animas project where the Emergency Response Program is conducting a time-critical site assessment/removal action at the Gold King Mine (adit), I thought I would review for EPA management what the Standard Mine project team has prepared for a similar blow-out event should it occur during our remedial action.

What: Currently, Level One drains at less than 20 gpm which is nominal for this time of year. The remedial investigation considered that natural roof falls and the resulting debris blockage may be constricting the flow of contaminated water pooled in the mine workings above Level One. The series of existing sediment ponds outside the Level One portal have some capacity to preclude discharge of visibly turbid and orange-colored water. The contractor is required to operate and maintain the treatment ponds for 115,000 gallons of retention. This is equivalent to four days' retention at the current drainage rate. We have a contract specification for dewatering the Level One bypass adit to control the disposal of contaminated water impounded behind collapsed materials so that slug releases do not exceed 20 gpm and potentially overwhelm the treatment ponds. This is accomplished by incrementally lowering the level of any impounded water found prior to removal of adit blockages.

When: We expect to excavate the bypass adit to survey station 3+50 (i.e. 350 feet beyond the surface entrance) before early September at the current forecast production rate of fourteen (14) feet per day. At that point we plan to connect the bypass adit to existing Level One workings with small diameter (1-1/2 ") exploratory boreholes to investigate the pressure head and presence of any potentially impounded water pool behind a Level One blockage. Calculations indicate that such an exploratory borehole could conduct x gpm under y feet of pressure head. [TBD]

Where: The receiving stream at the discharge of the treatment ponds is Elk Creek, a tributary to Coal Creek, which serves as the raw drinking water supply to the Town of

Crested Butte.

Why: Facilitate management review and oversight of the current contingency adit dewatering plans and blow-out mitigation measures provided under EPA contract to HDR/Harrison-Western.

How: Current Adit Dewatering Control Plan and sediment treatment pond retention capacity will be evaluated for adequacy with an abundance of caution approach characterizing our project.

Any questions?

Sincerely,

James Hanley

Mining Engineer

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